



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,149	08/24/2001	Paul Mansky	1012-119(2001-021)	3009

7590 02/13/2003

Eric M. Dobrusin
Dobrusin & Thennisch PC
Suite 311
401 South Old Woodward Avenue
Birmingham, MI 48009

EXAMINER

WIGGINS, JOHN DAVID

ART UNIT	PAPER NUMBER
----------	--------------

2856

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/939,149

Applicant(s)
Paul Manky et al.

Examiner
David J. Wiggins

Art Unit
2856



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on August 08, 2001 [Application for US PTO patent]
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-20, 22, and 24-29 is/are rejected.
- 7) ☒ Claim(s) 3, 21 and 23 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Aug 8, 2001 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 04, 05 6) ☐ Other:

Art Unit: 2856

Part III DETAILED ACTION

Examiner's Office Action

Drawings

1. *This application has been filed with formal drawings which have been judged acceptable on their technical merit by the Examiner, while also judged to possess acceptable quality for meeting drawing requirements of any Patent Drawing Review to be done by a US PTO draftsman after the 08/24/2001 filing date.*

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. The disclosure is objected to because of the following informalities:

On Page 32, claim 1, line 01; after the word "screening", please consider inserting the following phrase:

Art Unit: 2856

--- a set of members in ---

On Page 32, claim 1, line 07; after the words "said materials", please consider inserting the following phrase:

--- at said plurality of wells ---

On Page 32, claim 1, line 08; after the words "said materials", please consider inserting the following phrase:

--- passing from each of said plurality of wells ---

On Page 32, claim 4, line 02; after the word "plurality", please consider inserting the following term: --- of ---

On Page 33, claim 10, line 03; after the words "liquid samples,", please consider inserting the following text: --- and contacting said plurality of liquid samples with at least one tip portion of at least one capillary for permitting said liquid samples to pass into said at least one capillary while applying a first force

to said plurality of liquid samples, ---

On Page 34, claim 24, line 02; after the term "about 10 ml", please consider inserting the following phrase: --- of volume ---

On Page 36, claim 30, line 02; please consider replacing the words "the perimeter" with the following phrase:

--- a perimeter ---

On Page 36, claim 30, line 03; after the words "first force", please consider inserting the following phrase:

Art Unit: 2856

--- at said plurality of wells with ---
On Page 35, claim 30, line 08; after the word "capillary", please
consider inserting the following term: --- tube ---

On Page 36, claim 30, line 06; after the words "16 materials",
please consider inserting the following phrase:

--- passing from said plurality of wells ---

Appropriate correction is requested or required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

5. Claims 1-2, 4-6, 7, 8-9, 10-20, 22 and 24-29 are
rejected under 35 U.S.C. § 103 as being unpatentable over

Art Unit: 2856

McFarland, E. et al. WO98/15501 or Matsiev, L. et al. WO99/18431, in view of [Hajduk, D. et al. or Guan, S. et al.].

The prior art of McFarland et al. or Matsiev et al. teaches the technique of measuring viscosity [flow resistance] while applying a force to a multitude of different samples comprising a combinatorial library of sample well reactants in a material property characterizing apparatus that covers most features of the instant invention except for (1) having a capillary(s) system be used for contacting library members of a material(s) against a material source [as a fluid holding vessel or well or reservoir]. However, the prior art of Hajduk et al. discloses the concept of inserting a capillary into a sample well so as to move (dispense) a viscous liquid sample into the capillary (needle); with such sampling done for an array of sample wells so as to enable the determination of fluid viscosity by standard means [of noting fluid flow rate or travel speed over a timed interval]- where of course, by definition a capillary tube should serve to naturally siphon some fluid into its inlet end by the capillary effect (without the need to introduce an externally caused pressure drop or suction force, via fan or pump); such capillary attraction principles being known related to viscosity in a Notoriously Old

Art Unit: 2856

and Well Known manner of classic mathematical formulas. The Applicant is directed to review Hajduk et al. at their Columns 3-9 along with Figures 1, 6 & 15 for relevant details. It would have been obvious to one of ordinary skill in the art to consider using a capillary or needle for contacting a sample receiving well because this type of device is often used for dispensing small metered volumes of sample (titration) into a receiving site before sensor measurements are commenced. Similarly, the prior art of Guan et al. teaches an analogous method for measuring material properties via contact of a capillary tube restriction with a library material sample- please see their Column 3, line 10 - Column 8, line 49, especially Column 5 along with Figures 1-3, 8-9 & 12 for pertinent details. In regards to McFarland et al., the Applicant should review Page 7, line 8 - Page 8, line 10 and Pages 9-16 along with Figures 1-2, 5 & 8 for relevant details. In regards to Matsiev et al., the Applicant should review Page 2, line 16 - Page 10, line 31 together with Figures 1a-1b, 2, 3, 6 & 10a-10b for pertinent details. In regards to claims 10-19, the Applicant should peruse thru Guan et al. at their Column 3, lines 38-44, and Hajduk et al. at their Column 3, lines 11-31 and Column 5, line 1 - Column 6, line 18 for relevant details. It would be obvious to the skilled combinatorial

Art Unit: 2856

chemistry artisan to attempt to perform physical property measurements [viscosity, as well as chemical reactions] as swiftly as possible during such compound synthesis, testing and monitoring in a huge sample well array in order to trim research (R & D) time to a minimum (while finding & optimizing a useful formulation. In regards to claim 22, it is considered inherent for a non-pure viscous sample to include some impurities as solid components dissolved/suspended/trapped therein- with it being Notoriously Old and Well Known for a real world, real time "non-purified or non-filtered viscous/fluid" sample to contain some 500 nanometer solid particles; e.g.- dust, carbon, spores, smog or biologically active bodies.

Allowable Subject Matter

6. Claims 3, 21 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. Claim 30 is allowable over the prior art of record.

Art Unit: 2856

8. The following is an Examiner's statement of reasons for the indication of allowable subject matter: The prior art fails to disclose a method or system for screening & *measuring a library of materials for viscosity by contacting a capillary with a library of materials placed in a plurality of sample wells defined on a common substrate, where the materials are permitted to pass through the capillary tip portion from the sample wells in response to a first force applied to the materials at the plurality of sample wells, and the relative flow resistances for such materials are monitored in response to same applied force while such same materials remain on the substrate* so as to rank the members of same library of materials in regards to the monitored flow resistance(s); where such method(s), or an even simpler method 10, includes the further features of the objected to claims 3, 21 and 23.

9. The following is an Examiner's statement of Reasons for Allowance: The known prior art fails to disclose a method for *screening a library of materials for viscosity by contacting a capillary (in rapid serial manner) with at*

Art Unit: 2856

least 16 materials placed in a plurality of sample wells [diameter 10 mm or smaller] defined on a common substrate; where the materials are permitted to pass through a cylindrical opening tip portion of capillary tube placed in position within the plurality of wells in mating relationship with the walls that define a perimeter of the plurality of wells; then applying a first force to the 16 materials that causes the 16 materials to flow through the capillary tube tip portion from the plurality of sample wells, and the relative flow resistances for such materials is monitored in response to same applied force at a throughput rate of 4 minutes per sample (or less time) while such same 16 materials remain on the substrate so as to rank the members of same library of 16 materials in regards to the measured flow resistance(s).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2856

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited on the accompanying form PTO-892 are listed to show examples of state of the art systems and methods for generating, screening, monitoring, synthesizing and/or property testing for chemical/physical properties of viscous or visco-elastic fluid/gel substances by means of either an externally applied force or by a capillary tube applied in contact with such fluid/gel substance(s)--- [whether or not by using a combinatorial chemistry & materials science library approach; and whether or not the measured physical or chemical property of interest is viscosity, flow resistance, consistency or some other rheological characteristic], which method/system shares one or more features in common with the instant invention.

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to J. David Wiggins whose telephone number is (703) 305-4884. The Examiner can normally be reached on Monday to Friday from 9AM to 7PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Hezron E. Williams, can be reached on

Serial Number: 09 / 939,149

Page 11

Art Unit: 2856

(703) 305-4705. The fax phone number for this Group is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (703) 305-4900.

JDW
WIGGINS/jdw
February 04, 2003

HELEN KWOK
PRIMARY EXAMINER

Helen Kwok